

Patent
Customer No.: 006980
Docket No.: GOY4

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re application of:)	Confirmation No.: 5611
)	
GOYARTS, Gregorius M. H.)	Group Art Unit: 1794
)	
Serial No.: 10/551,781)	Examiner: Khatri, P. J.
)	
Filed: 5 October 2005)	
)	
For: WASHABLE UNDER PAD AND METHOD FOR)	
PRODUCING AN UNDER PAD OF THIS TYPE)	

37 CFR § 1.132 DECLARATION OF DAVID SCHREINER

Mail Stop AMENDMENT
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Atlanta, GA 30308
17 December 2010

Dear Honorable Sir:

1. I acknowledge, under the penalty of perjury pursuant to 18 U.S.C. § 1001, that willful false statements and the like are punishable by fine or imprisonment, or both, and may jeopardize the validity of the above identified patent application or any patent issuing from the above identified patent application. I have personal knowledge of the statements and information contained herein. All statements made below on my knowledge are true, and all statements made below on information and belief are believed to be true. For any statements made regarding legal concepts, we have relied on legal counsel explaining such concepts to me. I make this declaration in support of the patentability of the claims pending in this Application.

2. I, David Schreiner, a citizen of Canada, residing at 5385 NDG Avenue, Montreal, Quebec, Canada, H4A 1L2 am Executive Vice-President of MIP Inc, the company to which the above-identified application has been assigned. As Executive Vice-President I am considered an expert on healthcare products, in particular on those products produced by MIP and the products of the competition.

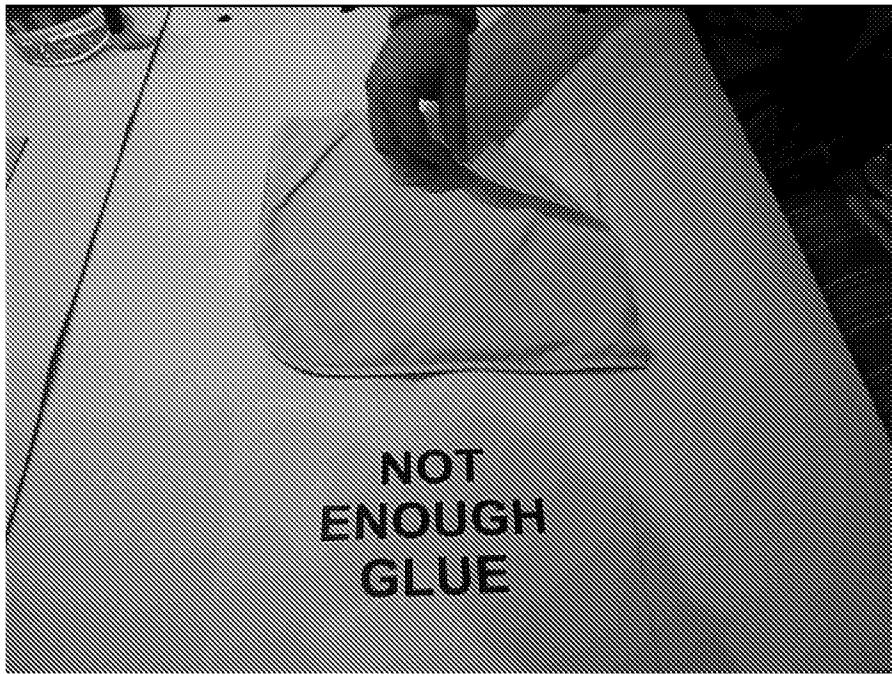
3. Having taken notice of the *Office Action* by the Examiner in the examination of the above-identified patent application, and the art cited (Hahn et al. US 5306267 and Levy US 5114418 in particular), I ordered the preparation of three under pads (also known as bed pads) with different amounts of adhesive composition, to illustrate the criticality of the amount of adhesive in this particular application.

4. Accordingly, three samples of a multilayer washable under pad comprising a moisture-permeable top layer material; a moisture-impermeable bottom layer material, and a moisture-absorption element positioned between them were prepared, wherein the layers were joined to one another by means of an adhesive composition in the form of a pattern that limits or prevents wrinkling. The multilayer assemblies/under pads tested were prepared according to the principles presented in the US 2006/0198993. The only difference between the three samples concerns the amount of adhesive.

5. The tested under pads were made using a knitted polyester material as top layer, using an assembly of fibers comprising 85% polyester and 15% viscose as moisture-absorption element, and using PVC as bottom layer. An adhesive composition was applied in the form of a pattern shape. The adhesive material applied was HPUX9717 from Forbo Swift. In these particular examples, the under pads were made from sheets of material. The adhesive composition was applied both in the interfacial region formed between top layer material and interlayer material and in the interfacial region formed between bottom layer material and interlayer material, after which the layers were brought to bear against one another and were joined to one another as the adhesive composition sets. During curing, the contact between the various layers was maintained under identical conditions in order to ensure final bonding. This operation was repeated three times, with different amounts of adhesive. In the Example I, about 15 g/m² adhesive was applied. In comparative Examples II and III, respectively about 5 and 50 g/m² adhesive was applied.

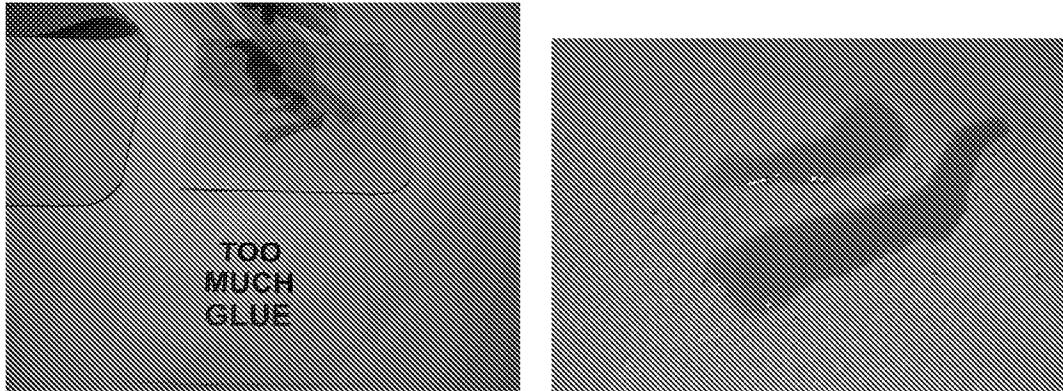
6. After extensive curing, the three samples were evaluated for possible use as under pad. They were in particular evaluated for delamination problems and problems concerning water absorption. Attached are series of pictures taken from the samples.

Example II (with about 5 g/m² adhesive)



7. This picture shows that there is separation and insufficient adhesion. For a quilted under pad with stitched layers this may not be a problem. For the claimed under pads this would be disastrous (even with edge finishing). It is clear that the under pad of Example II suffers from delamination after 20 cycles of washing.

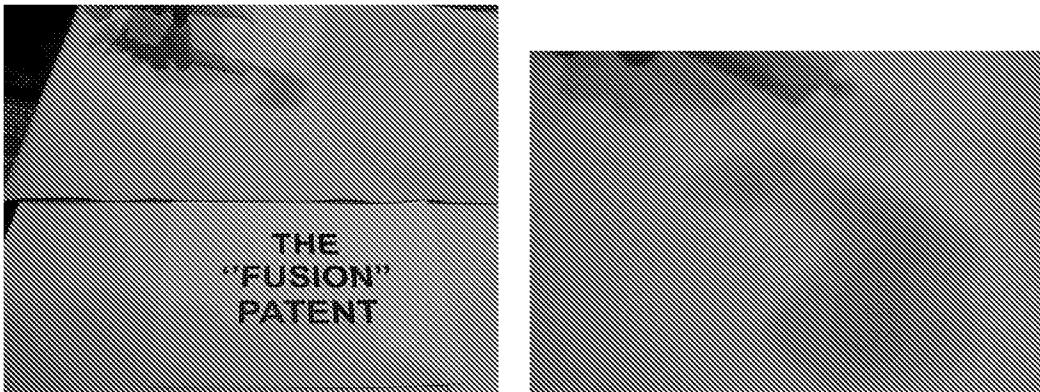
Example III (with about 50 g/m² adhesive)



8. The sample with about 50 g/m² adhesive will not delaminate even after many cycles of laundering at industrial (high temperature) conditions. However, these pictures show that moisture remains on top of the under pad, with droplets that are not absorbed. This under pad would cause serious problems for bedridden patients.

9. Further, the under pad of Example III showed signs of spot delamination on the surface and backing at 42 cycles of washing. The product failed at 50 cycles of washing.

Example I (with about 15 g/m² adhesive)



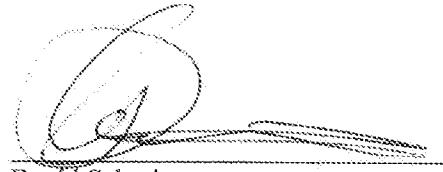
10. These pictures show that the appropriate amount of adhesive ensures integrity of the under pad with unrestricted absorption of moisture. Indeed, the liquid penetrated the under pad immediately and was wicked away from the surface and the central area, thus providing a stay dry area within 10 minutes.

11. The appearance of the under pad with an appropriate (within the claimed range) amount of adhesive was still very good, as well as its performance in terms of fast absorption and wicking, even after 100 cycles of washing, with no adverse effect on the impermeability of the bottom layer.

12. The mere evaluation of the three samples, as discussed above, establishes that the under pads of the current invention are remarkably suitable for bedridden patients. The criticality of the amount of adhesive is important, as is shown by failed examples II and III.

13. In my opinion as one of skill in the art, the invention as claimed in the present application is novel and non-obvious over the art cited, if only for the surprising results of the criticality of the amount of adhesive to form a usable under pad. For these reasons, a person skilled in the art would not have expected to find a reusable under pad that outperforms the commercial, quilted under pads of the prior art.

Dated: 17/12/2010



David Schreiner
Executive Vice President
MIP Inc.
9100 Ray Lawson Blvd
Montreal, Quebec
H1J 1K8
Canada

Website: www.mipinc.com